

<b>Title</b>	<b>Apply an optimised decision-making process for infrastructure asset management</b>		
<b>Level</b>	<b>6</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	<p>This unit standard is for people who work within the infrastructure asset management sector.</p> <p>People credited with this unit standard are able to: explain optimised decision-making process in relation to infrastructure asset management; define problems and/or opportunities and determine a range of options for infrastructure asset management, taking into account decision-making methodologies; and determine and report the optimal decision in relation to infrastructure asset management problems and/or opportunities.</p>
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<b>Classification</b>	Infrastructure Civil Engineering > Infrastructure Asset Management
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 The following requirements apply to this unit standard:  
*International Infrastructure Management Manual (IIMM)* guidelines, available at <https://www.ipwea.org/>,  
ISO 55000 series available at <https://www.iso.org/>;  
the ethical codes and standards relevant to a professional body or bodies; and  
legislative requirements which may include but are not limited to:  
Treaty of Waitangi Act 1975,  
Health and Safety at Work Act 2015,  
Resource Management Act 1991,  
Building Act 2004,  
Copyright Act 1994,  
Local Government Act 2002,  
Public Works Act 1981,  
Land Transport Management Act 2003, and subsequent amendments.
- 2 Assessment against this unit standard must be based on evidence from the workplace context. Evidence must be in accordance with organisational requirements.
- 3 Definitions  
*Infrastructure asset management* is the combination of management, financial, economic, engineering, and other practices applied to infrastructure assets with the

objective of providing the required levels of service in the most cost effective and sustainable manner.

*Infrastructure assets* typically refer, but are not limited, to asset groups such as roads and bridges, airports, railways, ports, parks and recreation facilities, water supply systems, stormwater systems, wastewater systems, flood and land drainage systems, solid waste management, telecommunications, energy, and infrastructure buildings and facilities.

*Organisational requirements* refer to strategies, policies, procedures, and requirements of the candidate's organisation.

## Outcomes and performance criteria

### Outcome 1

Explain optimised decision-making process in relation to infrastructure asset management.

#### Performance criteria

1.1 Optimised decision-making process for infrastructure asset management is explained.

Range may include but is not limited to – analysing the failure mode and risks, evaluating and selecting treatment options, developing optimum solutions.

### Outcome 2

Define problems and/or opportunities and determine a range of options for infrastructure asset management, taking into account decision-making methodologies.

Range evidence of two problems and/or opportunities and one methodology is required.

#### Performance criteria

2.1 Problems and/or opportunities are defined in terms of benefits and disbenefits.

Range evidence of two benefits and two disbenefits is required.

2.2 Range of options for addressing the problems and/or opportunities are identified, taking into account decision-making methodologies.

Range may include but is not limited to – do nothing, maintain, rehabilitate, replace, upgrade, non-asset solution or solutions; evidence of two options is required.

### Outcome 3

Determine and report the optimal decision in relation to infrastructure asset management problems and/or opportunities.

**Performance criteria**

- 3.1 Benefits and disbenefits for each identified option are determined.  
Range evidence of two benefits and two disbenefits is required.
- 3.2 Options are evaluated against established criteria to determine the optimal decision.  
Range may include but is not limited to – ranking, weighting or evaluation methodology.
- 3.3 The optimal decision is reported, documented, and filed in accordance with organisational requirements.

<b>Planned review date</b>	31 December 2025
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	27 April 2000	31 December 2017
Revision	2	19 February 2004	31 December 2017
Review	3	26 March 2007	31 December 2017
Review	4	19 May 2016	31 December 2022
Revision	5	28 September 2017	31 December 2022
Review	6	22 October 2020	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Connexis - Infrastructure Industry Training Organisation [qualifications@connexis.org.nz](mailto:qualifications@connexis.org.nz) if you wish to suggest changes to the content of this unit standard.